

White widow, *Latrodectus pallidus* (Araneida: Theridiidae), in Jordan and Egypt

Hisham K. El-Hennawy
41 El-Manteqa El-Rabia St., Heliopolis, Cairo 11341, Egypt
E-mail: el_hennawy@hotmail.com

Abstract

The theridiid "White Widow" spider, *Latrodectus pallidus* O.P.-Cambridge, 1872, is recorded from Amman, Jordan and Wadi Kid on Aqaba gulf, southern Sinai, Egypt. It is mainly described from Jericho, Palestine. Its record from Alexandria, Egypt, in 1872, is not true. After excluding doubtful records, the distribution of *L. pallidus* is mainly "Near Eastern and eastern Mediterranean". The westernmost, Cape Verde Is., and southernmost, Yemen, records denote the wide distribution of this species. Other records include Russia, Iran, and Turkey.

The design of the nest of this species is previously described. It was found among vegetation. In this work, the nests (webs) were found among rocks and inside small stony caves. The name "White Widow" is used instead of the current common name of *L. pallidus*, i.e. "Pale widow".

Keywords: Araneida, Theridiidae, *Latrodectus pallidus*, Jordan, Egypt, distribution.

Introduction

Among the 86 genera (2227 species) of family Theridiidae, genus *Latrodectus* Walckenaer, 1805 includes 31 species distributed in: North Africa, southern Africa and Madagascar; Mediterranean to Southeast Asia, Australia and New Zealand; Asia (Saudi Arabia, Yemen, Socotra, Kuwait, Iran); North and South America; and Spain (southern Europe) (Platnick, 2006).

A female specimen of the theridiid "White Widow" spider, *Latrodectus pallidus* O.P.-Cambridge, 1872 was found near Abu Nusseir, Amman (Jordan) on 1st November 1988 (Fig. 1). Her "nest" was examined and photographed (Fig. 2).

A juvenile theridiid spider was found at the entrance of an empty small stony cave on November 1994 in Kherieza, Wadi Kid, in Nabq protectorate on Aqaba gulf, southern Sinai (El-Hennawy, 2003). It was reared until reaching maturity to be a male *Latrodectus pallidus* (Fig. 3).

The distribution of this species and its web situation are discussed.



Fig. 1. *Latrodectus pallidus* O.P.-Cambridge, 1872 ♀, found near Abu Nusseir, Amman, Jordan. Fig. 2. Her web "Nest", between two rocks.

The First Record - 1872

The Reverend Octavius Pickard-Cambridge described *Latrodectus pallidus* as a new species in his "General list of the spiders of Palestine and Syria, with descriptions of numerous new species and characters of two new genera" (1872). He described the female of this species (pp.287-288). The following passages are extracted from his description:

"The colour of the *cephalothorax* is yellow-brown, that of the *palpi* and *legs* yellowish; the *tarsi*, *metatarsi*, *tibiae*, and *genua* of the latter, as well as the *digital joints* of the former, being deeply suffused with dark yellow-brown." ... "The *abdomen* is of a creamy-white colour with four deep-red-brown spots forming an oblong about the centre of the upper-side; the two foremost spots are smaller and nearer together than the hinder ones." ... "Adult and immature females were found in irregular snares spun among low plants on the plains of the Jordan; while the only situation in which *L. erebus* was found was beneath stones. In a similar situation the latter species was also found, not unfrequently, at Alexandria (Egypt) in 1864."

In 1876, Pickard-Cambridge only recorded *L. erebus* from Egypt. Females of this species "were found under stones among the ruins of an old building at Alexandria." He did not mention *L. pallidus*. [Note: *L. erebus* Savigny, 1825 (In: Audouin, 1825 & 1827) = *L. tredecimguttatus* (Rossi, 1790)]

Hence, the distribution of *L. pallidus* began by "the plains of the Jordan" as a new species "of the spiders of Palestine". The type material, 2♀♀, were collected from Jericho (Levy & Amitai, 1983). The hurried reading of the last paragraph of Pickard-Cambridge's description of *L. pallidus* led to the wrong result that it is also found in Egypt (Roewer, 1942; El-Hennawy, 1990 & 2002b).



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Fig. 3. *Latrodectus pallidus* O.P.-Cambridge, 1872 ♂, found in Kherieza, Wadi Kid.

Fig. 4. Stony caves of *L. pallidus* in Kherieza, Wadi Kid, in Nabq protectorate on Aqaba gulf, southern Sinai, Egypt.

The Two Subspecies

Caporiacco (1933) described the subspecies *Latrodectus pallidus immaculatus* from Gialo Oasis, Cufra in Libya. Levi (1959, p.38) stated that there is some doubt that *L. p. immaculatus* Caporiacco, 1933 from Libya is *L. pallidus*; it could be *L. geometricus*. Lotz (1994, p.43) stated that the type material of this subspecies is "not found". Due to this, Platnick (1997 & 2006) considered *L. p. immaculatus* a *nomen dubium*.

Brignoli (1983, p.386) and Platnick (1993, p.208) said that: *L. pallidus pavlovskii* Charitonov, 1954 (Turkestan) = *L. pallidus* O. Pickard-Cambridge, 1872 (Levi, 1959).

The Distribution

Levi (1959) mentioned that *L. pallidus* is recorded from Russia, Syria, Palestine, Iran, Egypt, Libya (Caporiacco, 1933), a doubtful record. And later (Levi, 1966, p.431), he said that: "*L. pallidus* is Near Eastern and eastern Mediterranean in distribution." It is also recorded from Turkey (Levy & Amitai, 1983), and "presumably in Syria, Jordan and Egypt (Sinai) but there are no explicit records" (Levy, 1998). Schmidt, et al. (1994) and Schmidt & Krause (1995) recorded *L. pallidus* from Cape Verde Islands. Knoflach & van Harten (2002, pp.351-353) recorded *L. pallidus* from Yemen too and said that "Its presence in Yemen is not surprising, but is based only on old museum specimens" (p.330).

Distribution of *Latrodectus pallidus* in different catalogues:

1. Roewer, 1942 (p.425): Tripoli, Egypt, Syria, Persian Gulf and *L. pallidus immaculatus* Cufra Oasis (Libya).
2. Platnick, 1989 (p.198) & 1993 (p.209): Libya to USSR.
3. Platnick, 1997 (p.277) & 2006: Cape Verde Is., Libya to Russia, Iran.

The record of *Latrodectus pallidus* from Kherieza (28°10'N 34°21'E), Wadi Kid, in Nabq protectorate on Aqaba gulf, southern Sinai is the first explicit record from Egypt (El-Hennawy, 2002a, 2002b, 2003). The published record from Alexandria is not true. There is another record, 1♀ on August among stones, from northern Sinai, Abu El-Husein (31°04'26"N 33°30'39"E) - Zaranik Protectorate (El-Hennawy, 2005).

Being collected from Jericho (Palestine), it is not unexpected to find it in Amman (Jordan). It is another explicit record.

After excluding Alexandria (Egypt) and Libya from its distribution, it is obvious that *Latrodectus pallidus* is mainly "Near Eastern and eastern Mediterranean in distribution" as Levi (1966) stated before. The westernmost, Cape Verde Is., and southernmost, Yemen, records denote the wide distribution of this species, with many question marks ??? (Fig. 5).

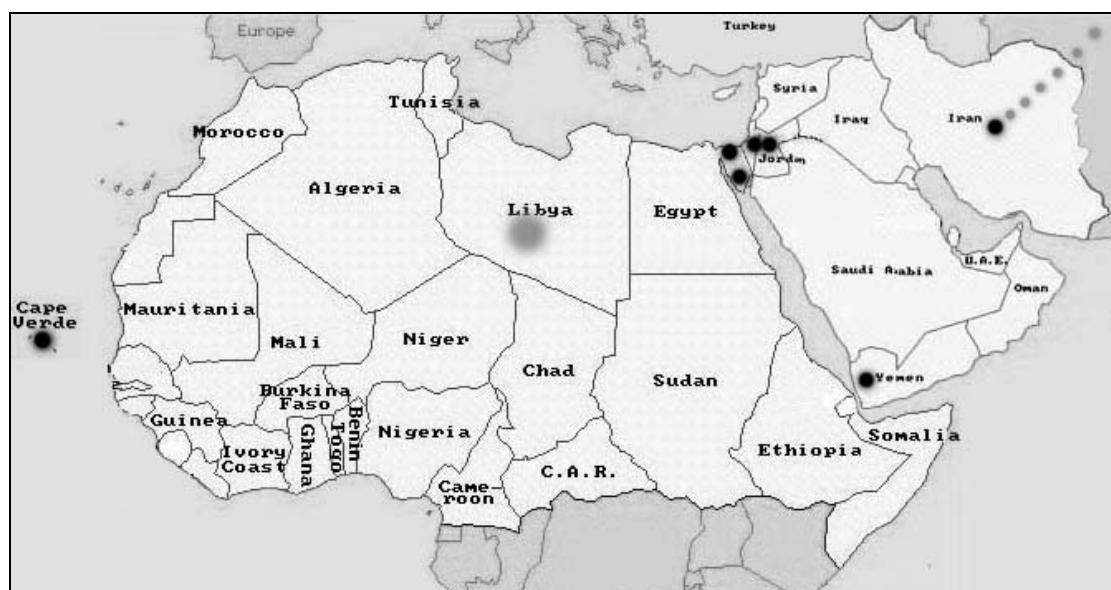


Fig. 5. Distribution map of *Latrodectus pallidus* O.P.-Cambridge, 1872 in the world.

The Web and its Situation

As summarized by Lotz (1994, p.43) according to Szlep (1965) "This species is found only in the desert which has some vegetation. ... the retreat situated up to 60 cm above ground level ... between twigs of the shrubs. ... it has, in addition to the retreat, a special catching web." Its "clearly outlined coned retreat tapers obliquely above the catching web." (Levy & Amitai, 1983, p.59).

Knoflach & van Harten (2002, pp.328, 352) added: The web consists of a tube- to bell-shaped retreat spun of dry silk and the catching web containing the partially sticky catching threads (Szlep, 1965). The retreat and catching web are connected by an irregular, three-dimensional bridge layer. *L. pallidus* builds an elaborate retreat, which is 10-12 cm long. The web is constructed at a height of 30-60 cm between the twigs of shrubs (Szlep, 1965). From the retreat a bridge web leads 10-15 cm downwards to the comparatively small catching area. The catching web mainly consists of long (ca. 20 cm) vertical catching threads, which arise from a fine-meshed platform and reach the ground. At the bottom they are covered with viscid droplets for a distance of 2-5 cm (Szlep, 1965).

The female *Latrodectus pallidus* of Abu Nusseir, Amman (Jordan) was found inside her nest between two rocks (Fig. 2). Its retreat was vertically straight and attached

to an irregular snare below it. It was about 35 cm up of the ground. There were carcasses of beetles, mostly of family Tenebrionidae, on the ground surface under the web and attached to it.

The webs of *Latrodectus pallidus* in Wadi Kid, southern Sinai were found inside small stony caves (Fig. 4). It is obvious that webs of this species are not necessarily related to vegetation.

Colouration and Common Name

"The *abdomen* is of a creamy-white colour" O.P.-Cambridge (1872). "The abdomen looks leathery, possibly due to the white coloration" Levi (1959, p.38). The male has "black spots ... on the pearly-white background" (Levy & Amitai, 1983, p.62).

Knoflach & van Harten (2002, p.330) said that *L. pallidus* is characterized "by its pale yellow colour". Hence, its "Common name: Pale widow" p.351.

The preserved museum specimens are really pale but alive ones have beautiful leathery white or light yellowish colour. The "White Widow" is something famous among amateurs now (e.g. www.arachnoboards.com). In fact, it is not fair to call *L. pallidus* a widow like the famous and dangerous "Black Widow". It may be called "White Bride" !!

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